

Remarks

Reconsideration of this application as amended is respectfully requested.

Claims 1-6, 8-16, and 18-20 stand rejected under 35 U.S.C. §102(b) as being unpatentable over "Monolithic Transformers and Their Application in a Differential CMOS RF Low-Noise Amplifier" (IEEE Journal of Solid-State Circuits, Vol. 33, No. 12, 12/98) by Zhou et al. ("Zhou").

Claims 1-3, 7, 11-13, and 17 stand rejected under 35 U.S.C. §102(a) as being unpatentable over "A 1-V Transformer-Feedback Low-Noise Amplifier for 5-GHz Wireless LAN in 0.18- $\mu$ m CMOS" (IEEE Journal of Solid-State Circuits, Vol. 38, No. 3, 3/2003) by Cassan et al. ("Cassan").

Claims 11-20 are cancelled.

New claims 21-30 are added.

Applicant submits that amended claim 1 is not anticipated by Zhou because Zhou does not disclose a differential amplifier having a pair of inductors that are arranged to have a mutual inductance that increases when the differential amplifier is excited in the common mode as claimed in amended claim 1. Instead, Zhou discloses a differential amplifier with a transformer that is arranged to have a mutual inductance that decreases when the differential amplifier is excited in the common mode. (Zhou, Figure 2 and page 2023, left column, lines 7-9).

Given that claims 2-10 depend from amended claim 1, it follows that claims 2-10 are not anticipated by Zhou.

It is also submitted that new claims 21-30 are not anticipated by Zhou because new claims 21-30 include limitations similar to the limitations of amended claim

1. Therefore, the remarks stated above with respect to amended claim 1 and Zhou also apply to new claims 21-30.

Applicant further submits that amended claim 1 is not anticipated by Cassan because Cassan does not disclose a differential amplifier having a pair of inductors that are arranged to have a mutual inductance that increases when the differential amplifier is excited in the common mode as claimed in amended claim 1. Instead, Cassan like Zhou discloses a differential amplifier with inductors that are arranged to have a mutual inductance that decreases when the differential amplifier is excited in the common mode. For example, Figure 7 of Cassan shows pairs of magnetically coupled inductors,  $L_s$  and  $L_D$ , having winding dots that are arranged like the winding dots of the transformers disclosed in Figure 2 of Zhou, i.e. a common mode signal has the same magnetic effect in the inductors  $L_s$  and  $L_D$  in the differential amplifier of Cassan as does a common mode signal in the transformers of the differential amplifier of Zhou.

Given that claims 2-10 depend from amended claim 1, it follows that claims 2-10 are not anticipated by Cassan.

It is also submitted that new claims 21-30 are not anticipated by Cassan because new claims 21-30 include limitations similar to the limitations of amended claim 1. Therefore, the remarks stated above with respect to claim 1 and Cassan also apply to new claims 21-30.

It is respectfully submitted that in view of the amendments and arguments set forth above, the applicable objections and rejections have been overcome.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 50-3718 for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

Date: 6-28-06

By: Paul H. Horstmann

Paul H. Horstmann  
Reg. No.: 36,167